

Attachment 2

Draft Text for
"Statement of Findings"
for
Conduct of IAG Site Characterization Activities in Floodplains/Wetlands

INTRODUCTION

On XXXXXX, XX, 1991, the Department of Energy (DOE) published a "Notice of Involvement in Floodplains/Wetlands" regarding its intent to undertake site characterization activities in floodplains/wetlands at its Rocky Flats Plant (RFP) north of Golden, CO. The activities are to be carried out pursuant to requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), and as part of DOE's implementation of the Interagency Agreement (IAG) between DOE, the Environmental Protection Agency and the Colorado Department of Health. This site characterization involves sampling of soil, sediments, surface water and groundwater to identify the presence, nature and extent of contaminants, if any. The site characterization activities covered in this document are those in a floodplain/wetland in operable units (OUs) 1 (881 Hillside), 2 (903 Area), 5 (Woman Creek) and 6 (Walnut Creek) and those under the site-wide Geologic Characterization Program.

PROJECT DESCRIPTION

The site characterization activities will be in the floodplains/wetlands of Woman Creek, Walnut Creek and South Walnut Creek. Figures 1 through 14 show the location of surface water, sediment, ground water, soil and soil gas sampling sites, including those in floodplains/wetlands. The arrows on figures 1, 3 and 6 through 11 show 24 sites where drilling may take place in a floodplain. The site characterization activities consist of 1) locating new surface water and sediment sampling stations, 2) drilling new wells and boreholes, 3) establishing soil sample sites and 4) collecting surface water, groundwater, sediment, soil and soil gas samples. Each of these activities is described below.

Locating new surface water and sediment sampling stations consists of driving a stake in the ground to mark a spot which can be returned to for future sample collection. Due to the nature of such sites, virtually all surface water and sediment sampling will be in a floodplain, and most will also be in a wetland. New and existing surface water and sediment sampling sites are shown in the attached figures, noted by SW-xx and SED-xx respectively.

Drilling new wells, boreholes and soil gas sampling holes involves driving a drilling rig to the designated site and drilling the hole, typically within a day. Wells are typically four-to-six inches in diameter while boreholes are generally somewhat smaller. As the drill bit advances, drill cuttings are brought to the surface and shoveled into 55-gallon drums for analysis of any contaminants, storage and ultimate disposal. Samples of drill cuttings from boreholes are analyzed for soil type and constituents before being drummed. When drilling is completed, surface evidence of the activity includes downed vegetation around the immediate site and, in the case of wells, an eight-inch metal pipe sticking two-to-three feet above the ground. Approximately 24 wells and boreholes will be drilled within a floodplain. It is possible, but unlikely, that some of those could be in wetlands.

Establishing soil sample sites can be accomplished by three procedures. One is to simply determine the point from which a small quantity (two-to-three tablespoons) of surficial soil will be collected. The second is using a backhoe to dig pits that are typically nine feet long, five feet wide and four feet deep. These pits

are generally dug and backfilled within a day. The third procedure is drilling a borehole. Boreholes, as mentioned above, are small-diameter holes, usually fairly shallow, which are drilled to collect the cuttings. Soil sampling pits and boreholes may be located within a floodplain, but are typically not located in wetland areas. Soil samples will be collected from within some of the square plots shown in figure 2. Plots 38, 51, 52, 57, 81, 96, 109 and 115 include areas in a floodplain. Therefore, soil samples taken from these plots have the potential to be taken from that part of the plot within a floodplain. Exact locations of soil sampling sites have not yet been determined. Surficial soil sampling sites may be located anywhere there is soil.

Collection of samples consists of driving or walking to a sampling site or well and collecting up to a few pounds of the desired medium, except in the case of soil gas samples. Soil gas samples are obtained by dropping a collection device down the soil gas well and retrieving it. The sampling may be done on a weekly, monthly, quarterly or irregular basis.

All samples will be removed from the field and sent to on-site or off-site laboratories for analysis.

Because of the nature of the site characterization activities, no significant adverse impacts are expected to lives, property or the natural and beneficial values of floodplains, or to the survival, quality and natural and beneficial values of wetlands.

ALTERNATIVES

No Action Alternative

The site characterization program, of which the floodplain/wetlands sampling is a part, is being undertaken under the provisions of CERCLA and RCRA, and pursuant to the IAG. Both the statutes and the Agreement require clean-up of contaminated sites. This clean-up cannot be reasonably undertaken without field sampling to identify existing conditions. Therefore, the No Action Alternative is dismissed as unreasonable.

No Sampling in Floodplains or Wetlands

Among the most important concerns about contamination at RFP is the possibility of its presence in surface water and/or groundwater and the potential for contaminated water at RFP to pose a threat to drinking water supplies. Therefore, sampling surface water is fundamental to identifying the nature and extent of contamination at RFP. Most surface water at RFP is in a floodplain and also in wetland areas. Thus it is virtually impossible to sample surface water without being in a floodplain and a wetland.

Similarly, sediments, which are typically in or under bodies of water, can be sampled only in a floodplain and, most often, a wetland. Given the lack of negative impacts from sampling, this alternative is dismissed as being seriously harmful to the site characterization program with no offsetting benefits.

No Drilling in Floodplains or Wetlands

The various drilling programs (groundwater wells, soil sample boreholes and soil gas holes) are carefully designed to help identify various characteristics of specific targets. Some holes are designed to delimit the edge of contaminant plumes, others to better understand the geology and hydrology in certain locations, and still others to identify the contaminants that may exist underground. In each case, locations are chosen carefully and deliberately to yield the best results by hitting specified targets. Because most of

the wetlands at RFP tend to be either linear or very small, moving a well a few feet can avoid the wetland without compromising the integrity of the program or affecting the results. As indicated above, such action will be taken where possible. There will be cases where a well cannot be relocated, or not relocated far enough, to avoid a wetland, and in such cases, the well will be completed in the wetland. As described above, the drilling program is expected to result in virtually no adverse impacts to wetlands at RFP.

Floodplains at RFP tend to be much larger than wetlands: generally 100- to 200-feet wide. Moving wells up to half that distance to get them out of the floodplain could seriously compromise the results of the program and produce useless data. Given the fact that the drilling program will have no significant adverse effects on the floodplain or the environment within it, such a compromise is unnecessary.

This alternative is dismissed as unreasonable because it would seriously compromise the results of the site characterization program without any offsetting benefits.

WHY FLOODPLAIN/WETLAND ACTION IS NECESSARY

As noted above, surface water and sediment sampling activities must, by their nature, occur in floodplains and, often, in wetlands. The drilling, soil pit excavation and sample collection activities are necessary to adequately assess the nature and extent of contamination. Drilling and sampling targets are carefully chosen so that resulting data present the clearest and most accurate picture of existing conditions as a basis of future remediation activities. Moving these activities could seriously compromise the results and lead to inappropriate remedial activities with no offsetting benefits since the proposed action will produce no significant adverse impacts to floodplains or wetlands.

CONFORMANCE WITH APPLICABLE LOCAL REGULATIONS

The site characterization programs are consistent with applicable local floodplain regulations.

MITIGATION MEASURES

Because of the inherently small impacts to floodplains/wetlands of the proposed action, few steps are needed to mitigate potential harm to, or within, floodplains. Two steps will be taken, however. Where a drilling site can be relocated to be out of a wetlands while maintaining the purpose of the drilling, such action will be taken. Second, travel within floodplains will be restricted to established roads and tracks whenever possible.